IAA is the primary auxin found in plants. IAA promotes cell elongation in the stems of plants. Studies have shown that light effects the movement of IAA within plants. IAA moves away from illuminated areas of plants to shaded areas. The movement of IAA creates an unbalance of the hormone from side to side areas of the stem of a plant. This means there is more IAA in the shaded part which makes that side of the stem grow quicker, bending the plant toward the light source. This makes no sense when it comes to roots. It would indicate that if you were to shine a light on roots they would grow toward the source. In other words the roots would head to the sky. They don't of course. Other studies indicate the light on roots inhibits the metabolism of IAA stunting their growth altogether.

The inhibitory effect of light on the growth of plants correlates with a decrease of free IAA content in their tissues and might be mediated through changes of IAA metabolism. In different parts of Zea mays L. seedlings (roots, mesocotyls and coleoptiles) that respond to light with a different growth rate, the effect of light on the formation of IAA metabolites was examined in feeding experiments with ^14C-IAA. In all tissues, IAA was taken up and metabolised mainly into six compounds, four of them were tentatively identified as IAA-1-O-glucose (IAGlc), IAA-myo-inositol, indole acetamide and IAA-aspartate (IAAsp). IAA was metabolised most slowly in the roots.

These studies suggests auxins redirect growth of roots when exposed to light . The root areas exposed by light metabolized IAA at a greater rate. They grew quicker and point the direction of growth to dark areas. In other words auxins tell the roots to grow away from light and head down into the soil, a natural survival technique.

Effects of indole acetic acid (IAA) on the negative phototropism of rice root.
Personal Authors: Mo YiWei, Wang Zhong, Qian ShanQin, Gu YunJie
Document Title: Chinese Journal of Rice Science, 2004 (Vol. 18) (No. 3) 245-248
Abstract:
The effects of IAA on the negative phototropism in rice was investigated using ELISA.
(Phototropism: the directional growth in which the direction of growth is determined by the direction of the light source).

The bending part of rice roots was also examined to investigate microstructure in response to IAA. Seminal root growth can be regulated by IAA as well as light. Roots bent towards the site of the application, causing assymetrical growth of the root cells at the elongation zone. IAA concentrations on shaded adventitious roots increased 1.5 h after irradiation. The unequal lateral IAA distribution was the main cause of negative phototropism in rice.

Hidenori Hirota, Plant and Cell Physiology, 1980, Vol. 21, No. 6 961-968 1980

"Roots curved more when the tops of seedlings were exposed to light than when the tops of seedlings were covered. These results suggest that auxin may induce root curvature